

**ABSTRACT**

5 The present invention is directed to a stitch-bonded elastic polymeric composite comprising a non-fibrous elastically extensible substrate stitched with a substantially inextensible yarn system. The composite may have an optional fibrous layer stitch-bonded to the non-fibrous substrate either over or under the non-fibrous elastic substrate. The composite preferably has a shrinkage during boil-off of less than about 10%. The stitching yarn network preferably allows stretch beyond the as-stitched dimensions of about 10-100% in at least one direction, and the composite can recover from this stretch to within 5% in at least one direction.